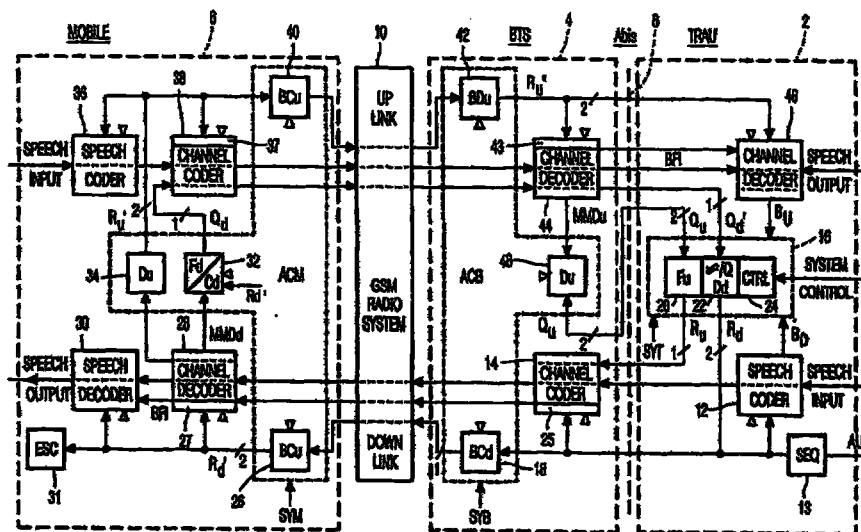




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(54) Title: TRANSMISSION SYSTEM HAVING A SIMPLIFIED CHANNEL DECODER



(57) Abstract

In a tailbiting convolutional encoder the encoder (12) is initialized with a sequence of symbols corresponding to the final symbols of a sequence to be encoded, resulting in that the begin state and the final state of the encoder are the same. The problem of the convolutional code obtained by such a coder is that it requires substantial computational resources to decode it. In the simplified decoder according to the invention, the decoding process is extended by a plurality of trellis sections to a length $N + \nu$. At the final trellis section, the state with the largest path metric is selected as the best state. This best state is used as starting point for a trace back operation to find an earlier state at N trellis section before the final trellis section. The earlier state found there is regarded as correct, having as consequence that the trellis should terminate also in said state. By performing a trace back from said state the source symbols can be found.